



**[4910-13-P]**

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2017-1085; Product Identifier 2016-SW-094-AD]**

**RIN 2120-AA64**

**Airworthiness Directives; Airbus Helicopters Deutschland GmbH Helicopters**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** We propose to adopt a new airworthiness directive (AD) for Airbus Helicopters Deutschland GmbH (Airbus Helicopters) Model MBB-BK 117 A-1, MBB-BK 117A-3, MBB-BK 117 A-4, MBB-BK 117 B-1, MBB-BK 117 B-2, MBB-BK 117 C-1, and MBB-BK 117 C-2 helicopters. This proposed AD would require repetitive inspections of the tail rotor (T/R) gearbox housing. This proposed AD is prompted by a report that a crack was found in a T/R gearbox housing. The actions of this proposed AD are intended to address an unsafe condition on these products.

**DATES:** We must receive comments on this proposed AD by [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** You may send comments by any of the following methods:

- Federal eRulemaking Docket: Go to <http://www.regulations.gov>. Follow the online instructions for sending your comments electronically.
- Fax: 202-493-2251.

- Mail: Send comments to the U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590-0001.

- Hand Delivery: Deliver to the “Mail” address between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

### **Examining the AD Docket**

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2017-1085; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the European Aviation Safety Agency (EASA) AD, the economic evaluation, any comments received, and other information. The street address for Docket Operations (telephone 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

For service information identified in this proposed rule, contact Airbus Helicopters, 2701 N. Forum Drive, Grand Prairie, TX 75052; telephone (972) 641-0000 or (800) 232-0323; fax (972) 641-3775; or at [http://www.helicopters.airbus.com/website/en/ref/Technical-Support\\_73.html](http://www.helicopters.airbus.com/website/en/ref/Technical-Support_73.html). You may review the referenced service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy, Room 6N-321, Fort Worth, TX 76177.

**FOR FURTHER INFORMATION CONTACT:** David Hatfield, Aviation Safety Engineer, Safety Management Section, Rotorcraft Standards Branch, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177; telephone (817) 222-5110; email [david.hatfield@faa.gov](mailto:david.hatfield@faa.gov).

## **SUPPLEMENTARY INFORMATION:**

### **Comments Invited**

We invite you to participate in this rulemaking by submitting written comments, data, or views. We also invite comments relating to the economic, environmental, energy, or federalism impacts that might result from adopting the proposals in this document. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. To ensure the docket does not contain duplicate comments, commenters should send only one copy of written comments, or if comments are filed electronically, commenters should submit only one time.

We will file in the docket all comments that we receive, as well as a report summarizing each substantive public contact with FAA personnel concerning this proposed rulemaking. Before acting on this proposal, we will consider all comments we receive on or before the closing date for comments. We will consider comments filed after the comment period has closed if it is possible to do so without incurring expense or delay. We may change this proposal in light of the comments we receive.

### **Discussion**

EASA, which is the Technical Agent for the Member States of the European Union, has issued EASA AD No. 2016-0134, dated July 8, 2016, to correct an unsafe condition on Airbus Helicopters Model MBB-BK 117 A-1, MBB-BK 117 A-3, MBB-BK 117 A-4, MBB-BK 117 B-1, MBB-BK 117 B-2, MBB-BK 117 C-1, MBB BK 117 C-2, and MBB-BK 117 C-2e helicopters. EASA advises that a crack was found in the T/R gearbox housing of a Model MBB-BK117 C-2 helicopter. According to EASA,

investigations determined high vibrations caused by T/R imbalance were a contributing factor to the crack. EASA states that this condition, if not detected and corrected, could lead to the loss of the T/R gearbox and subsequent loss of control of the helicopter. As a result, the EASA AD requires repetitive inspections of the T/R gearbox housing and replacing the housing if a crack is found.

#### **FAA's Determination**

These helicopters have been approved by the aviation authority of Germany and are approved for operation in the United States. Pursuant to our bilateral agreement with Germany, EASA, its technical representative, has notified us of the unsafe condition described in its AD. We are proposing this AD because we evaluated all known relevant information and determined that an unsafe condition is likely to exist or develop on other products of the same type design.

#### **Related Service Information Under 1 CFR part 51**

We reviewed Airbus Helicopters Alert Service Bulletin (ASB) MBB-BK117-30A-119, Revision 0, dated May 24, 2016, for Model MBB-BK 117 A-1, MBB-BK 117 A-3, MBB-BK 117 A-4, MBB-BK 117 B-1, MBB-BK 117 B-2, and MBB-BK 117 C-1 helicopters and ASB MBB-BK117 C-2-65A-007, Revision 0, dated May 24, 2016, for MBB-BK 117 C-2 helicopters. This service information specifies an initial and repetitive inspections of the T/R gearbox housing for cracks.

This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

### **Proposed AD Requirements**

This proposed AD would require within 100 hours time-in-service (TIS) and thereafter at intervals not to exceed 100 hours TIS, cleaning and visually inspecting the T/R gearbox housing for a crack. If there is a crack, this proposed AD would require replacing the T/R gearbox before further flight.

### **Differences between this Proposed AD and the EASA AD**

The EASA AD applies to Model MBB-BK117 C-2e helicopters, and this proposed AD would not because it is not an FAA type-certificated model. The EASA AD allows a non-cumulative tolerance of 10 hours TIS for the inspections, and this proposed AD would not. The EASA AD requires performing the inspection after a certain maintenance action and before a T/R gearbox housing is installed, and this proposed AD would not.

### **Costs of Compliance**

We estimate that this proposed AD would affect 176 helicopters of U.S. Registry and that labor costs average \$85 a work-hour. Based on these estimates, we expect that inspecting the T/R gearbox would require 1 work-hour and no parts would be required for a cost of \$85 per helicopter and \$14,960 for the U.S. fleet per inspection cycle. Replacing the T/R gearbox would require 4.5 work-hours and parts would cost \$69,219 for a cost of \$69,602 per helicopter.

### **Authority for This Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator.

“Subtitle VII: Aviation Programs,” describes in more detail the scope of the Agency’s authority.

We are issuing this rulemaking under the authority described in “Subtitle VII, Part A, Subpart III, Section 44701: General requirements.” Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

### **Regulatory Findings**

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed, I certify this proposed regulation:

1. Is not a “significant regulatory action” under Executive Order 12866;
2. Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);
3. Will not affect intrastate aviation in Alaska to the extent that it justifies making a regulatory distinction; and
4. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

We prepared an economic evaluation of the estimated costs to comply with this proposed AD and placed it in the AD docket.

#### **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

#### **The Proposed Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

#### **PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

#### **§ 39.13 [Amended]**

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

**Airbus Helicopters Deutschland GmbH:** Docket No. FAA-2017-1085; Product Identifier 2016-SW-094-AD.

##### **(a) Applicability**

This AD applies to Airbus Helicopters Deutschland GmbH Model MBB-BK 117 A-1, MBB-BK 117 A-3, MBB-BK 117 A-4, MBB-BK 117 B-1, MBB-BK 117 B-2, MBB-BK 117 C-1, and MBB-BK 117 C-2 helicopters, certificated in any category.

##### **(b) Unsafe Condition**

This AD defines the unsafe condition as a crack in a tail rotor (T/R) gearbox housing. This condition could result in the loss of the T/R gearbox and subsequent loss of helicopter control.

**(c) Comments Due Date**

We must receive comments by [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE Federal Register].

**(d) Compliance**

You are responsible for performing each action required by this AD within the specified compliance time unless it has already been accomplished prior to that time.

**(e) Required Actions**

Within 100 hours time-in-service (TIS) and thereafter at intervals not to exceed 100 hours TIS, clean and visually inspect the T/R gearbox housing for a crack in the area depicted in Figure 1 of Airbus Helicopters Alert Service Bulletin (ASB) MBB-BK117-30A-119, Revision 0, dated May 24, 2016, or ASB MBB-BK117 C-2-65A-007, Revision 0, dated May 24, 2016, as applicable to your model helicopter. If there is a crack, replace the T/R gearbox before further flight.

**(f) Special Flight Permits**

Special flight permits are prohibited.

**(g) Alternative Methods of Compliance (AMOCs)**

(1) The Manager, Safety Management Section, Rotorcraft Standards Branch, FAA, may approve AMOCs for this AD. Send your proposal to: David Hatfield, Aviation Safety Engineer, Safety Management Section, Rotorcraft Standards Branch, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177; telephone (817) 222-5110; email david.hatfield@faa.gov.

(2) For operations conducted under a 14 CFR part 119 operating certificate or under 14 CFR part 91, subpart K, we suggest that you notify your principal inspector, or lacking a principal inspector, the manager of the local flight standards district office or



certificate holding district office before operating any aircraft complying with this AD through an AMOC.

**(h) Additional Information**

The subject of this AD is addressed in European Aviation Safety Agency (EASA) AD No. 2016-0134, dated July 8, 2016. You may view the EASA AD on the Internet at <http://www.regulations.gov> in the AD Docket.

**(i) Subject**

Joint Aircraft Service Component (JASC) Code: 6520, Tail Rotor Gearbox.

Issued in Fort Worth, Texas, on August 27, 2018.

Lance T. Gant,

Director, Compliance & Airworthiness Division,  
Aircraft Certification Service.

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